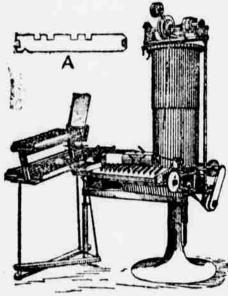
### THE SCIENTIFIC WORLD.

PICTURE OF THE THORNE TYPE-SETTING MACHINE.

Medical Flora of North America-Real Inventor of the Incandescent Light. New York Catching On-Terra Cotta Lumber-Facts of Interest.

Much interest has been excited recently by the performance of the Thorne typesetting machine. It is the only invention of the kind that so far seems entirely successful. It both sets and distributes type. The inventor is Joseph Thorne. The machine has been exhibited to a number of newspaper publishers, among them Mr. Samuel Bowles, of The Springfield (Mass.) Republican. All were enthusiastic in its praise.

Mr. Thorne has been working on his invention for sixteen years-ten years in New York and six in Hartford -and now claims to have a perfect working and practical machine. When working at its best, the machine, with one man and two ladies, will set about 6,000 ems per hour-the work of six average printers. The construction and working of the machine is simple, compared with other inventions for the same purpose. Each type has its special "nick," and as the distributing cylinder revolves these drop into their respective channel in a stationary cylin-



In setting, the pressure on the keys forces separate types onto a rapidly revolving disk, and these are carried automatically into and through a trough to a galley for justification. The delicate part of the mechanism is where the types enter the long channel to the justi-fying galley. Any defect at this spot is in-stantly noticed by the operator and quickly remedied. To persons interested in the art of printing, it was a pleasing study to watch the "silent messengers of thought" in their rapid flight to the galley of solid matter.

Mr. Thorne has eight of his machines in practical use in New York book publishing offices, and is at work upon an order for

Experts say that the cost of composition is reduced one half by this ingenious invention. The small, straight piece A on the left shows how each single type is nicked in order to be caught and slid along in the machine.

### The Aconite Plant.

A valuable work, unique of its kind, has been prepared and published by Messrs. J. U. & G. C. Lloyd, of Cincinnati. It is nothing less than an illustrated description of the medical flora of North America. Such pains has been taken to have the work accurate that it will have place as standard authority on medical botany.



ACONITE LEAF AND FLOWERS.

The first volume is issued. It deals with the first natural order of American medical plants, the renunculacers. From its pages we have selected the aconite.

a plant from which one of the most powerful medicines known is obtained.

The illustration shows the leaf and down of the aconitum uncinatum, a variety not used medicinally. It is found wild in the Allegheny mountains. It is a garden flower, too, and as such is called monkshood. The plant has a weak, slender stem, two to five feet long, and showy blue flowers.

The American variety of this plant used in medicine is one nearly resembling that in the illustration. It is called the aconitum fischeri, and is found along the banks of streams in the mountains in western states. The medicinal properties are obtained from the root. Aconite is a poison, like so many other valuable medicines. It is paralyzing in its action. The aconite commonly used in medicine is made from a root imported from Europe.

Real Inventor of the Incandescent Light. The real inventor of the process for obtaining light by the incandescence of a strip or wire of earbon was a young American, in England, forty years ago, Mr. Starr, whose patent for it (taken out by Mr. King) was enrolled on May 4, 1846. At the end of a a platinum wire was fased and to one end of above the bust, and neet at the waist over a mercury, the whole tube being thirty-three front, and over the velvet plastron. The

### Odd Detective Photography. A wealthy iron master in the north of A pretty way to improve the appearance of

alopted an ingenious contrivance by which he may glean some information as to what the waist, laying the ribbon in soft folds at

the walls, consisting of a roll of Eastman paper and a train of clockwork. Ever hour a shutter is silently opened by the machinery, and an instantaneous photograph is taken of all that is going on in the room. On the great man's return he delights to develop these pictures, and it is said that they have furnished some very strange information indeed. One clerk, who received his dismissal somewhat unexpectedly, and boldly wanted to know the reason why, was horrified when shown a photograph in which he was depicted lolling in an easy chair, with his feet upon the office desk, while the clock on the mantelpiece pointed to an -hour at which he ought to have been at his busiest. The servants' party in the best dining room furnished another thrilling scene.

Utilizing Scrap Tin. A company called the Electro Metal Extracting, Refining and Plating company, of London, England, has been formed to carry out a new process by which the tin is stripped from the iron in a perfectly pure form, while the foundation plate is unattacked. The scrap is placed in a series of baths, through which a current from a dynamo is sent, and while there the white metal is dissolved, and is afterwards recovered in metallic state. A large profit is realized. The process is also set forth as being applicable to mining refuse, tailings and slags containing gold, silver, copper, tin, etc., as well as to plating metals with zinc.

New York Catching On.

At last the work of putting telephone and telegraph wires underground in New York city has actually begun. The conduit system, laying the wires in asphaltum lined tubes, is adopted. New York has already adopted the fire tower from Chicago. The police patrol wagon, in use some years in Cincinnati, is also about to be tried in the metropolis. When, at length, by the generosity of Mr. Tilden, the town gets a great free library, such as Chicago, Cincinnati and Boston have had these many years, then New York will have caught up with other American cities in the march of modern improvements.

### Terra Cotta Lumber.

A terra cotta lumber has recently been added to the list of mineral building materials. A kaolinite of good quality is mixed with sawdust, worked by machinery into slabs, and is then burned, sawed and dressed. It is in this condition ready for market, and is said to be indestructible by fire, water or gas. It is a poor conductor, and suffers but slight expansion or contraction by changes of temperature. Its weight is put down at one half that of brick. It can be worked with edge tools, bored and sawed, and holds nails as readily as timber. It is also made into hollow tile and fireproof casing.

### Facts of Interest.

Spirits of turpentine will remove unpleasant odors from the hands when all other deodorants fail.

The passage of the Suez canal is now made in sixteen hours by the aid of electric lights, which make night travel possible.

Some remarkable rock paintings and an unknown temple have been discovered in San Luis Obispo county, Cal. They are pre-

Paper bed clothes are made at a factory in manilla paper, strengthened with twine. They have a warmth preserving power far out of proportion to their thickness and weight.

The present cost of operating the railroads

# FASHION'S FANCIES.

# Red Dresses for Children.

twill and the skirt edged with embroidery, a stone en natural to better effect than perhaps plastron and half sleeves of twill, edged with any other form, -Jewelers' Circular, lace and embrodery are often arranged with a full red jupe, decorated with bands of embreidered insertion and edging put on either vertically or horizontally.

# Potonalse Costume.

The polonaise is appearing again. The fashion books are reproducing it and it is seen in new deesses in New York. It is convenient and becoming to most women. The illustration gives front and back of

polomise suit for a slender young lady. The polomise is very long. The skirt is loosely drapsel in front in the manner shown, Behind it falls full and plain. The back draping of the polonaise, opening up at the side as it does, is graceful and unique. The polomise has princess shaped fonts. These



barometer tube a bulb was blown, into which are gathered full into a sort of yoke just this a stick of gas retort carbon was fastened, plain plastron of black velvet. The waist the other wire being carried through the opening is at one dde, under the princess inches long. Mr. Starr tried platinum and broad, collar like arrangement seen in the platino-iridium alloys, in wires and sheets, front view, at the neck, terminates in the carbonized thrends, cano, etc., before he hit shoulder seams, if the velvet is placed down upon gas-retort carbon. The lamp was re- the back of the waist, in the manner shown, peatedly exhibited in action, at the town If the velvet is omitted, the broad collar hall and the Midland institute in Birming passes all the way across the back, and is rounded off behind.

England, whose house and works are daz- a plainly-made dress of white veiling is to goes on during his not unfrequent absences the seams in surplice style, and gauging them from home. In several of his rooms and in into a narrow compass at the belt. Narrow all the demands of fashion.

his offices there is a concealed apparatus in folds of dainty white sifk etamine or tulle veil the opening in the neck, the wider folds of the moire coming down each side, the ends of this drapery being covered at the waist by a belt of the same silk. In the back are a sash and long ends of watered ribbon. This easy mode of giving a more dressy look to a simple toilet holds good for colored gowns also of almost any description which needs furbishing. Bretelles of velvet are also effective additions to plain bodices. For short, stout women these bretelles are made extremely long. For more slender figures are velvet revers, reaching no more than haif way down the length of the waist. The same effect can be given to the back of the corsage

### Evening Dress.

In time to be ready for the coming season of grand dinners, suppers and other dress occasions, we give our readers herewith an illustration of the regulation evening dress. It is of the kind seen in opera boxes often in New York and other American cities, and always in the large European cities.



SATIN EVENING DRESS.

The grand dames of England particularly affect this style of costume for stately occasions. The one shown in the picture is rich and simple. It is of satin of any light color desired. Pale lemon or straw color is a favorite shade. It is the one in the model. The skirt is made plain and full. The plain, long, slightly rounded train is fastened on at the waistband. The drapery is of silk gauze embroidered with gold and looped up with large rosettes of satin ribbon. The drapery is edged with lace to match. Folds of tulle cover the bust and shoulder strap. Hair New Jersey. They are doubled sheets of dressed high, with flowers. Long light brown or tan-colored gloves.

### The Moonstone.

The moonstone furore seems to be at its of the country with steam power is in round height. At least, there is a large stock of numbers \$502,000,000 per annum; but to carry moonstone jewelry in the cases of both retail on the same amount of work with men and and wholesale houses. The moonstones are horses would cost the country \$11,308,500,000. set now in both gold and silver, and in many eases value as well as effect is added by the association of rose diamonds. The moonstone faces continue popular, and are both fanciful and grotesque. Then there is a full line of neck and searf pins in form of three and four Most charmingly dressed children are to be clover leaf patterns. Often the stones set in seen on the explanades and piers of fashion- these are tinted. Moonstones are of frequent able sea resorts in the early hours of the occurrence in cuff buttons for both sexes, and then the basket was held so that Mr. Fig ran are popular in study for gentlemen's wear, right into it. Of course he was frightened these made of red Turkey twill combined These stones have also appeared on charms for and began to back as fast as he could. The with pretty lace and embroidery are most be- queen chains. There is a tendency now to man kept the basket over his head, and before coming; on some the skirt is of the twill, employ the finest specimens of moonstrine which forms a background for the lace, or without either carving or tinting, but de backed over the bridge-just what he didn't the latter is used to descrate the red fabric; pending only upon the chatoyant reflection of on others the blome bedice is plaited or the stone, and a unique setting for effect, gathered into a yoke of face mounted on Little balls set in claws show off the moon-

# Don't eat with your knife.

Don't sit cross-logged before company. Don't swing your foot or trot it, or sit with your testurned in.

Don't rock messently in a rocking chair before company. It makes people nervous. Don't drum with your fingers or wriggle your hands. Don't pick your teeth before people. It's

masty. Den's be polite to strangers and snappish and boorish at home, among the people who love you most.

Don't make a noise with your mouth like

### an animal, when you eat. Steels for Skirts.

The steels in skirt backs are now placed very high, and so near the bolt that the cushion of hair is not required, as the upper steel makes a very bouffant tournure. To do this the placket hole of the foundation skirt is made longer, and the open placket space slips back and forth on the steel across the top. The back breadths of the outside skirts are then attached to a separate band, and hooked on each side the belt beneath.

A favorite bangle consists of numerous slender gold or silver wire circlets, no two-ofwhich are decorated alike. As many as eighteen to twenty four of these are worn on one arm, each one independent of the other, not being connected in any way, but langing

### loose around the arms. FASHIONLETS.

The prevailing rage in attire is for oriental

Jet and colored beads upon dresses still

maintain their favor. Challi, etamine, fouland and India silk are

used for girls' nice dresses. Full waists and full sleeves are decided features of new French dresses.

Tucks are fashionable around the bettoms. of the long chemises now worn Walsts with basques terminate behind in

long points or los ps, la Paris. Coarse cotton net over colored silk or woolen goods is very fashi mable in Paris.

don. Of course it will become where, Bathing shoes are bright red, and the more like a flaming o one can look the more task | pleasant it is to do things for others. There ionable she will be as a bather. Crinkled seersucker is all the rape for the

hot weather. Cream is a fashionable shade.

Gentlemen wear seersmiller suits. Large drapery establishments are this seawhich, despite their low price, amply fulfill

# YOUNG FOLKS' COLUMN.

PICTURE OF HOW A WISE MAN DROVE A PIG TO MARKET.

Go Along, Pigy!-How an Ingenious Humming Bird Mother Made an Umbrella to Shelter Her Young Ones. Rhyming Bible Lesson.

Here is an alphabet that will make you dudy. Get out your bible and turn to the places. When you have found them, read and remember:

A was a monarch who reigned in the east. -Esther i, 1. B was a Chaldean who made a great feast.

-Daniel v. 1-4. was veracious when others told lies. -Num. xiii, 30-33.

D was a woman, heroic and wise. -Judges iv, 4-14. E was a refuge where David spared Saul.

-I Sam. xxiv, 1-7. F was a Roman accuser of Paul. -Acts xxvi, 24.

G was a garden, a frequent resort. - John xviii, 1-2; Matt. xxvi, 3c H was a city where David held court. -II Sam. ii, 11.

I was a mocker, a very bad boy. -Genesis xvi, 16. J was a city preferred as a joy. -Psalm exxxii, 6,

K was a father, whose son was quite tall. -Sam. ix, 12. L was a proud one who had a great fall. -Isaiah xiv. 12.

M was a nephew whose uncle was good. -Col. iv, 19; Acts iv, 24. N was a city long hid where it stood. Zachariah ii. 13.

o was a servant, acknowledged a brother. -Philemon i, 16. P was a Christian greeting another. -II Timothy iv, 21.

R was a damsel who knew a man's voice. -I Kings xi, 4-11. T was a senport where preaching was long.

-Acts xx, 6-7 U was a teamster struck dead for his wrong. -Sam. vi, 7.

V was a cast off, and never restored. -Esther i, 19. Z was a ruin with sorrow deplored. -Psalm exxxvi.

Driving a Pig.
What do you think of this way of driving a pig! Poor piggy feels the sticks on either side of him, and thinks he is between two walls, so goes straight ahead. Some pigs are pretty stupid. They are so fat that they can't look around, so they go along just guessing at what is behind them. If they should turn once the trouble would be to get them



GO ALONG, PIGGY.

It is hard to drive a pig over a bridge. I once saw a man drive one with a bushel basket. He followed close behind until piggy turned and tried to run off the bridge, and he knew what was being done piggy had want to do. Sometimes they try to lend pigs by tying a string to their hand leg. This does are hard things to drive, and should be left alone is much as possible. For all pigs seem so stupid they can be thought many things if they are taken when young. There is one thing, however, that a piggy cannot be taught, and that is to cut properly. Piggy will always be pointed out as an example of what greedings with a tra-that is, laziness, statedity and sold iness. Under Mark in Runal New Yorker

# A Clever Bumming Bird.

Fittell you how a clover humining bird shielded her little ones from the rain. There they were, and the ram was beginning to full. The people who had watched their nest out of their winelow were concerned about the was prepared for the emergency. Near the nest grew a large leaf-it was a butternut tiee and on one side of the nest a small twig



A BIRD'S UMBRELLA. When the drops began to full, she came quickly, and with many tugs pulled the leaf over the little nest for a roof, and hooked it by the twig on the other side, which held it

Thus the half-feathered babies were kept as dry under their green roof as if their have had been built by a carpenter, like the starrow houses all around on the trees.

Every boy and every girl ought to have a good friend. Most people naturally pick out a "climm." That is a good plan North a Salad grown is a fushionable color in Lon- friend-hip teaches us lessons in generoody The selfish people are those who never knew what real friendship is, and so cannot see how are too many selfish people in the world now. They make the very air about there sour and blue. Pick out your own friends. Those that other people may select for you will not be half so true. - Uncle Mark.

My first is a weapon used in war, my and lives in the sea, my whole is a specie of fish found in warm climates.

How many terrible aches one's poor head has, and what suffering is caused by these headaches. Relief may be had from Nervous. Neuralgic, or Sick Headache by the use of Park Riccelle. Which is not a cure-all, but which is a cure for Nervous Headache, Neuralgia, Rheumatism, Sciatica and Gout. No proprietary medicine has ever obtained such strong endorsement from the medical profession.

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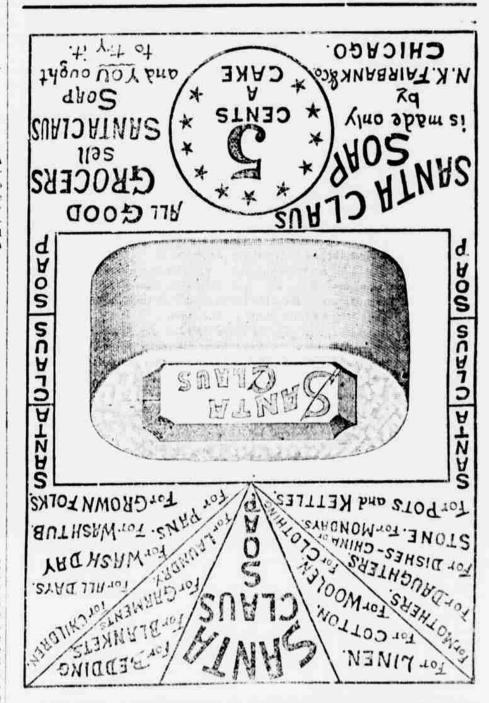
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